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EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Continuation sheet:

Continuation of 11: Applicant's arguments filed 12/20/2010 have been fully considered but they are not persuasive.

Arguments pertaining to coatings comprising CMC are moot because all claims reciting a coating comprising CMC have been cancelled.

Applicant's argues that Ferguson et al only exemplifies non-ionic cellulose derivatives. As previously discussed (Final Office Action mailed 10/21/2010), Ferguson was only used to teach typical papermaking process steps that were generally known in the art at the time of the invention.

Continuation of 7: The claims as amended no longer require a coating composition, therefore all reference to a coating composition is no longer needed and would be withdrawn from the outstanding rejections. Nevertheless, the amended claims remain rejected over the cited prior art as follows.

Matsuda et al discloses an ink jet recording medium comprising a paper substrate containing from 5 to 30 percent by weight of a filler and retention aids (Abs; col 1, lines 6-10; col 2, lines 25-32; col 3, lines 33-35 and 60-64; col 4, lines 9-18 and 25-27). Matsuda et al does not disclose the claimed CMC.

One of ordinary skill in the art would have been aware of the relevant prior art teaching retention aids, including JP-2002-201202.

JP-2002-201202 discloses that CMC having a DS of quaternary ammonium groups and a DS of carboxymethyl groups and net anionic charge overlaying the

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claimed CMC is used as a coagulating agent (retention aid), flocculating agent (retention aid), fixing agent (a retention aid) and yield improver (retention aid). The claimed quaternary cationizing groups are disclosed.

Absent convincing evidence of unexpected results due to the claimed CMC, it would have been obvious to one of ordinary skill in the art to use the CMC of JP-2002-201202 as a retention aid in the paper of Matsuda et al and to have a reasonable expectation of success in retaining the filler in the paper.

The typical papermaking steps taught by Ferguson et al would also have been obvious.

Agnemo discloses a paper comprising retention aids, fillers, a particular acid and a reduction agent (Abs, col 2, lines 33-58). In some embodiments, the paper is supercalendered paper having a filler content of about 20-30% by weight of the dry paper (col 3, line 66 to col 4, line 3). In other embodiments, the paper is a fine paper comprising 5-30% filler by weight of the dry paper and an outermost layer comprising a surface size (reads on a paper coating) or a coating layer (col 4, lines 10-28). The paper is made by adding the retention aids, fillers to an aqueous papermaking stock, dewatering the stock and drying the stock (col 5, lines 15-30; col 6, lines 11-14).

Agnemo does not disclose the claimed cellulose ether.

One of ordinary skill in the art would have been aware of the relevant prior art teaching retention aids, including JP-2002-201202.

JP-2002-201202 discloses that CMC having a DS of quaternary ammonium groups and a DS of carboxymethyl groups and net anionic charge overlaying the claimed CMC is used as a coagulating agent (retention aid), flocculating agent (retention aid), fixing agent (a retention aid) and yield improver (retention aid). The claimed quaternary cationizing groups are disclosed.

Absent convincing evidence of unexpected results due to the claimed CMC, it would have been obvious to one of ordinary skill in the art to use the CMC of JP-2002-201202 as a retention aid in the paper of Agnemo and to have a reasonable expectation of success in retaining the filler in the paper.

/Dennis Cordray/

Examiner, Art Unit 1741

/Matthew J. Daniels/

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